SECTION 6.0

Natural Gas Supply

6.1 Introduction

This section discusses the natural gas supply for the Walnut Energy Center (WEC). Subsection 6.2 describes the proposed natural gas supply pipeline (alternate routes are discussed in Section 9.0, Alternatives). The gas supply pipeline construction methods and metering station are described in Subsection 6.3. Pipeline operations are described in Subsection 6.4. Subsection 6.5 lists the permits and permitting schedule.

Natural gas will be obtained from a Pacific Gas & Electric Company (PG&E) transmission pipeline (Line 215), located south of the Project site at West Bradbury Road (see Figure 6.1-1). A new 8-inch-diameter pipeline will be constructed from the PG&E pipeline tap point to the WEC site. A meter station will be installed at the WEC site.

6.2 Proposed Route

The proposed pipeline is approximately 3.6 miles long. The pipeline would run north from West Bradbury Road (where it ties into the PG&E main pipeline, Line 215) adjacent to South Commons Road for approximately 2.7 miles. It would then turn east on the south side of the railroad tracks for another 0.9 mile to WEC.

A 250-foot pipeline construction corridor will be used to provide the flexibility to locate the pipeline on either side of Commons Road and the railroad tracks. During construction, however, only an area 50- to 75-feet wide will be disturbed. The specific location of the pipeline will be determined based upon the avoidance of any sensitive environmental resources, ability to obtain right-of-way, and the location of existing pipelines.

Construction primarily will be open trench. Where the pipeline crosses irrigation canals, open-trench construction will be used if the canal is dry and can be taken out of service, otherwise “jack-and-bore” or horizontal directional drilling (HDD) construction will be used.

Two alternative natural gas pipeline routes were evaluated in addition to the preferred route. All routes appear feasible. The two alternative routes that were considered are discussed in Section 9.0, Alternatives.

6.3 Construction Practices

6.3.1 Gas Pipeline

The natural gas pipeline will be constructed with a minimum of one crew working continuously along the road right-of-way (franchise) or pipeline ROW, with construction of the entire pipeline requiring a peak workforce of approximately 36 workers. Workers will

park their vehicles in the construction parking area at the WEC site or along the ROW. The ROW will be accessed over existing roads to the extent feasible. Most major pieces of construction equipment will remain along the ROW during construction. Besides providing worker parking, the WEC site will serve as the location for storing pipe and other pipeline construction materials. Additional storage locations will be in existing paved or graveled areas along the pipeline route. Pipeline construction will take approximately 5 months and is expected to begin toward the end of the first year following the start of project construction.

During construction along the roadway, one lane would be blocked and traffic control would be required. Excavated earth material would be stored on the side of the road. When work is not in progress, trench plate would cover the exposed trench so that traffic can proceed in both lanes. If necessary, additional material-storage locations may be located along the ROW. The line pipe will be of alloyed carbon steel in accordance with the American Petroleum Institute (API) specification for line pipe. The pipe will have factory-applied corrosion protection coating. Joints would be welded and inspected using x-ray.

The construction of the natural gas pipeline will consist of the following:

1. **Trenching-**width depends on the type of soils encountered and requirements of the governing agencies. The optimal trench will be approximately 18 inches wide and 48 inches deep. With loose soil, a trench up to 8 feet wide at the top and 2 feet wide at the bottom may be required. The pipeline will be buried to provide a minimum cover of 36 inches. The excavated soil will be piled on one side of the trench and used for backfilling after the pipe is installed. The pipeline will be installed through trenching at all locations except where boring or directional drilling is required to pass beneath a road, natural watercourse, canal, or to avoid sensitive areas.

2. **Stringing** consists of trucking lengths of pipe to the ROW and laying them on wooden skids beside the open trench.

3. **Installation** consists of bending, welding, and coating the weld-joint areas of the pipe after it has been strung, padding the ditch with sand or fine spoil, and lowering the pipe string into the trench. Bends will be made using a cold bending machine or shop-fabricated as required for various changes in bearing and elevation. Welding will meet the applicable API standards and will be performed by qualified welders. Welds will be inspected in accordance with API Standard 1104. Welds will undergo 100 percent radiographical inspection by an independent, qualified radiography contractor. All coating will be checked for holidays (i.e., defects) and will be repaired before lowering the pipe into the trench.

4. **Backfilling** consists of returning spoil back into the trench around and on top of the pipe, ensuring that the surface is returned to its original grade or level. The backfill will be compacted to protect the stability of the pipe and to minimize subsequent subsidence.

5. **Plating** consists of covering any open trench in areas of foot or vehicle traffic at the end of a workday. Plywood plates will be used in areas of foot traffic and steel plates will be used in areas of vehicle traffic to ensure public safety. Plates will be removed at the start of each workday. Efforts will be made to minimize the length of open trench along the ROW.

6. **Boring/Horizontal Directional Drilling** method may be used for moderately short crossings under roads, canals, sensitive habitats, or where it would be environmentally unsound to use the open-cut method. Boring pits will be dug on each side of the crossing. The HDD method may be used when a longer crossing is required.
7. **Hydrostatic testing** consists of filling the pipeline with fresh water, venting all air, increasing the pressure to the specified code requirements, and holding the pressure for a period of time. After hydrostatic testing, the test water will be chemically analyzed for contaminants and discharged to local land, unless the analysis shows that the water is contaminated. In this case the water would be trucked to an appropriate disposal facility. Temporary approvals for test water use and permits for discharge will be obtained, as required by the construction contractor.
8. **Cleanup** consists of restoring the surface of the roadway or ROW by removing any construction debris, grading to the original grade and contour, and revegetating or repairing where required.
9. **Commissioning** consists of cleaning and drying the inside of the pipeline, purging air from the pipeline, and filling the pipeline with natural gas.
10. **Safety** consists of using PG&E's standard safety plan for the project. This plan addresses specific safety issues, traffic control, working along traveled county streets, and other areas, as required by permits.

6.3.2 Metering Station

A gas-metering station will be required at the WEC site to measure and record gas volumes. In addition, facilities will be installed to regulate the gas pressure and to remove any liquids or solid particles. The metering station will require an area of approximately 55 feet by 55 feet.

Construction activities related to the metering station will include grading a pad and installing above- and belowground gas piping, metering equipment, gas conditioning, pressure regulation, and possibly pigging facilities. A distribution power line for metering-station-operation lighting, communication equipment, and perimeter chain-link fencing for security will also be installed.

6.4 Pipeline Operations

The proposed natural gas supply pipeline will be designed, constructed, and operated in accordance with 49 CFR 192 and CPUC General Order No. 112. Specifically, the pipeline will be designed in accordance with the standards required for gas pipelines in proximity to populated areas, based on actual population densities along the proposed pipeline route. It will be installed a minimum of 36 inches deep, as required by Federal Code.

PG&E's standard operations and maintenance plan will be in place, addressing both normal procedures and conditions and any upset or abnormal conditions that could occur. Periodic leak surveys and cathodic protection surveys will be performed along the pipeline, as required by 49 CFR 192. The pipeline will be continuously protected by a cathodic protection system. PG&E's standard emergency plan will provide prompt and effective

responses to upset conditions detected along the pipeline or reported by the public. This plan is reviewed with local agencies annually.

PG&E has a proactive damage prevention program in place which will be applied to the pipeline. Markers identifying the location of the pipeline will be placed at all road crossings. The markers will identify a toll-free number to call before any excavation in the vicinity of the pipeline.

Isolation block valves will be installed at both ends of the pipeline. These valves will be manually controlled, lockable, gear-operated ball valves. PG&E will own and operate a metering facility to measure the gas supply to WEC. A pipeline Supervisory Control and Data Acquisition (SCADA) system will provide flow rate and pressure data to PG&E and WEC. Communication with PG&E gas line operations will be by dedicated telephone lines or other means, such as Cellular Digital Pocket Data (CDPD).

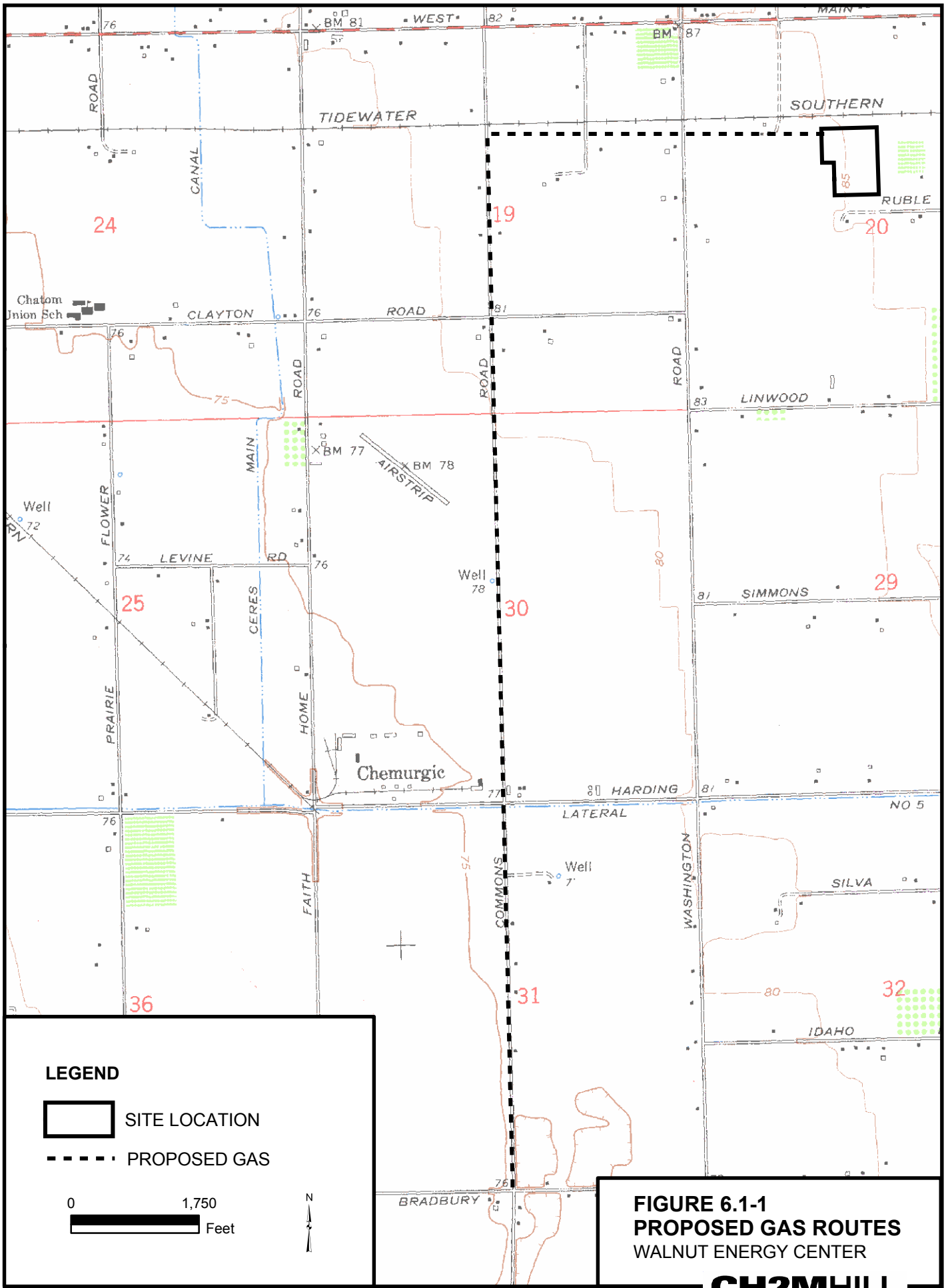

FIGURE 6.1-1
PROPOSED GAS ROUTES
WALNUT ENERGY CENTER

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